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SEQUENCE LISTING

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Morse, Mohamad

<120> IMMUNOLOGICAL METHODS TO MODULATE MYOSTATIN IN
VERTEBRATE SUBJECTS

<130> 9001-0042.01

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<160> 39

<170> PatentIn Ver. 2.0

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<212> DNA

<213> bos taurus

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gcatgtttgt ggagggaaaa cactacatcc tcaagactag aagccataaa aatccaaatc 180
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1128

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 Val Glu Lys Glu Gly Leu Cys Asn Ala Cys Leu Trp Arg Glu Asn Thr
 35 40 45
 Thr Ser Ser Arg Leu Glu Ala Ile Lys Ile Gln Ile Leu Ser Lys Leu
 50 55 60
 Arg Leu Glu Thr Ala Pro Asn Ile Ser Lys Asp Ala Ile Arg Gln Leu
 65 70 75 80
 Leu Pro Lys Ala Pro Pro Leu Leu Glu Leu Ile Asp Gln Phe Asp Val
 85 90 95
 Gln Arg Asp Ala Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His
 100 105 110
 Ala Arg Thr Glu Thr Val Ile Thr Met Pro Thr Glu Ser Asp Leu Leu
 115 120 125
 Thr Gln Val Glu Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser
 130 135 140
 Lys Ile Gln Tyr Asn Lys Leu Val Lys Ala Gln Leu Trp Ile Tyr Leu
 145 150 155 160
 Arg Pro Val Lys Thr Pro Ala Thr Val Phe Val Gln Ile Leu Arg Leu
 165 170 175
 Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu
 180 185 190
 Lys Leu Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val
 195 200 205
 Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly
 210 215 220
 Ile Glu Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val Thr
 225 230 235 240
 Phe Pro Glu Pro Gly Glu Asp Gly Leu Thr Pro Phe Leu Glu Val Lys
 245 250 255
 Val Thr Asp Thr Pro Lys Arg Ser Arg Arg Asp Phe Gly Leu Asp Cys
 260 265 270
 Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val

275	280	285
Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr		
290	295	300
Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu Gln Lys		
305	310	315 320
Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly Ser Ala		
	325	330 335
Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr		
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Phe Asn Gly Glu Gly Gln Ile Ile Tyr Gly Lys Ile Pro Ala Met Val		
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Val Asp Arg Cys Gly Cys Ser		
370	375	

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 <222> (1)..(60)

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 <223> Description of Artificial Sequence: MYOS 1 peptide coding sequence, Figure 2

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 Gly Ser Arg Ser Arg Arg Asp Phe Gly Leu Asp Cys Asp Glu His Ser
 1 5 10 15
 acc gaa aga tct 60
 Thr Glu Arg Ser
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<210> 4
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: MYOS 1 peptide coding sequence, Figure 2

<400> 4
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 1 5 10 15
 Thr Glu Arg Ser
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<210> 5
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MYOS 3 peptide coding sequence,
Figure 3

<220>
<221> CDS
<222> (1)..(51)

<400> 5
gga tcc tct cgt tgc tgt cgc tat ccg ctg acc gtt gac ttc gaa aga 48
Gly Ser Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Arg
1 5 10 15

tct 51
Ser

<210> 6
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MYOS 3 peptide coding sequence,
Figure 3

<400> 6
Gly Ser Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Arg
1 5 10 15

Ser

<210> 7
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MYOS 5 peptide coding sequence,
Figure 4

<220>
<221> CDS
<222> (1)..(57)

<400> 7
gga tcc ttc gaa gct ttt ggt tgg gac tgg atc att gca ccg aaa cgt 48
Gly Ser Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg
1 5 10 15

tat aga tct 57
Tyr Arg Ser

<210> 8
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MYOS 5 peptide coding sequence,
Figure 4

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Gly Ser Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg
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Tyr Arg Ser

<210> 9
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MYOS 7 peptide coding sequence,
Figure 5

<220>
<221> CDS
<222> (1)..(54)

<400> 9
gga tcc aaa cgt tat aaa gct aac tat tgc tct ggt gaa tgc gaa ttc 48
Gly Ser Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe
1 5 10 15
aga tct 54
Arg Ser

<210> 10
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MYOS 7 peptide coding sequence,
Figure 5

<400> 10
Gly Ser Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe
1 5 10 15
Arg Ser

<210> 11
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MYOS 9 peptide coding sequence,
Figure 6

<220>
<221> CDS
<222> (1)..(72)

<400> 11
gga tcc gaa ttc gtt ttc ctg cag aaa tat ccg cat acc cat ctg gtt 48
Gly Ser Glu Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val
1 5 10 15
cat cag gct aac ccg cgt aga tct 72
His Gln Ala Asn Pro Arg Arg Ser
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<210> 12
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MYOS 9 peptide coding sequence,
Figure 6

<400> 12
Gly Ser Glu Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val
1 5 10 15
His Gln Ala Asn Pro Arg Arg Ser
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<210> 13
<211> 81
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MYOS 11 peptide coding sequence,
Figure 7

<220>
<221> CDS
<222> (1)..(81)

<400> 13
gga tcc gct ggt ccg tgc tgt tat ccg acc aaa atg tct ccg atc aac 48
Gly Ser Ala Gly Pro Cys Cys Tyr Pro Thr Lys Met Ser Pro Ile Asn
1 5 10 15
atg ctg tat ttc aac ggt gaa tgc cag aga tct 81
Met Leu Tyr Phe Asn Gly Glu Cys Gln Arg Ser
20 25

<210> 14
<211> 27
<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: MYOS 11 peptide coding sequence, Figure 7

<400> 14

Gly Ser Ala Gly Pro Cys Cys Tyr Pro Thr Lys Met Ser Pro Ile Asn
1 5 10 15

Met Leu Tyr Phe Asn Gly Glu Cys Gln Arg Ser
20 25

<210> 15

<211> 72

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MYOS 13 peptide coding sequence, Figure 8

<220>

<221> CDS

<222> (1)..(72)

<400> 15

gga tcc gaa tgc cag atc att tat tgc aaa atc ccg gct atg gtt gta 48
Gly Ser Glu Cys Gln Ile Ile Tyr Cys Lys Ile Pro Ala Met Val Val
1 5 10 15

gac cgt tgc ggt tgt tct aga tct 72
Asp Arg Cys Gly Cys Ser Arg Ser
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<210> 16

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MYOS 13 peptide coding sequence, Figure 8

<400> 16

Gly Ser Glu Cys Gln Ile Ile Tyr Cys Lys Ile Pro Ala Met Val Val
1 5 10 15

Asp Arg Cys Gly Cys Ser Arg Ser
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<210> 17

<211> 63

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MYOS 15 peptide coding sequence,

Figure 9

<220>

<221> CDS

<222> (1)..(63)

<400> 17

gga	tcc	gaa	cag	aaa	gaa	aac	ggt	gaa	aaa	gaa	ggt	ctg	tgc	aac	gct	48
Gly	Ser	Glu	Gln	Lys	Glu	Asn	Val	Glu	Lys	Glu	Gly	Leu	Cys	Asn	Ala	
1				5				10					15			

tgc	ctg	tgg	aga	tct	63
Cys	Leu	Trp	Arg	Ser	
			20		

<210> 18

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MYOS 15 peptide coding sequence, Figure 9

<400> 18

Gly	Ser	Glu	Gln	Lys	Glu	Asn	Val	Glu	Lys	Glu	Gly	Leu	Cys	Asn	Ala
1				5				10					15		

Cys	Leu	Trp	Arg	Ser
			20	

<210> 19

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MYOS 17 peptide coding sequence, Figure 10

<220>

<221> CDS

<222> (1)..(60)

<400> 19

gga	tcc	cat	gac	ctg	gct	ggt	acc	ttc	ccg	gaa	ccg	ggt	gaa	gac	ggt	48
Gly	Ser	His	Asp	Leu	Ala	Val	Thr	Phe	Pro	Glu	Pro	Gly	Glu	Asp	Gly	
1				5				10					15			

ctg	acc	aga	tct	60
Leu	Thr	Arg	Ser	
			20	

<210> 20

<211> 20

<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MYOS 17 peptide coding sequence,
Figure 10

<400> 20

Gly Ser His Asp Leu Ala Val Thr Phe Pro Glu Pro Gly Glu Asp Gly
1 5 10 15
Leu Thr Arg Ser
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<210> 21
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MYOS 19 peptide coding sequence,
Figure 11

<220>
<221> CDS
<222> (1)..(60)

<400> 21
gga tcc acc ccg ttc ctg gaa gtt aaa gtt acc gac act ccg aaa cgt 48
Gly Ser Thr Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
1 5 10 15
tct cgt aga tct 60
Ser Arg Arg Ser
20

<210> 22
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MYOS 19 peptide coding sequence,
Figure 11

<400> 22
Gly Ser Thr Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
1 5 10 15
Ser Arg Arg Ser
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<210> 23
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: reconstructed
myostatin active region, Figure 13

<220>
 <221> CDS
 <222> (1)..(372)

<400> 23
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 1 5 10 15
 acc gaa aga tcc tct cgt tgc tgt cgc tat ccg ctg acc gtt gac ttc 96
 Thr Glu Arg Ser Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe
 20 25 30
 gaa gct ttt ggt tgg gac tgg atc att gca ccg aaa cgt tat aga tcc 144
 Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr Arg Ser
 35 40 45
 aaa cgt tat aaa gct aac tat tgc tct ggt gaa tgc gaa ttc gtt ttc 192
 Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe
 50 55 60
 ctg cag aaa tat ccg cat acc cat ctg gtt cat cag gct aac ccg cgt 240
 Leu Gln Lys Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg
 65 70 75 80
 aga tcc gct ggt ccg tgc tgt tat ccg acc aaa atg tct ccg atc aac 288
 Arg Ser Ala Gly Pro Cys Cys Tyr Pro Thr Lys Met Ser Pro Ile Asn
 85 90 95
 atg ctg tat ttc aac ggt gaa tgc cag atc att tat tgc aaa atc ccg 336
 Met Leu Tyr Phe Asn Gly Glu Cys Gln Ile Ile Tyr Cys Lys Ile Pro
 100 105 110
 gct atg gtt gta gac cgt tgc ggt tgt tct aga tct 372
 Ala Met Val Val Asp Arg Cys Gly Cys Ser Arg Ser
 115 120

<210> 24
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: reconstructed
 myostatin active region, Figure 13

<400> 24
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 1 5 10 15
 Thr Glu Arg Ser Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe
 20 25 30
 Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr Arg Ser
 35 40 45
 Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe
 50 55 60
 Leu Gln Lys Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg

65		70		75		80									
Arg	Ser	Ala	Gly	Pro	Cys	Cys	Tyr	Pro	Thr	Lys	Met	Ser	Pro	Ile	Asn
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Met	Leu	Tyr	Phe	Asn	Gly	Glu	Cys	Gln	Ile	Ile	Tyr	Cys	Lys	Ile	Pro
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<210> 25

<211> 1473

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: leukotoxin polypeptide carrier, Figures 15A-15D

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<221> CDS

<222> (1)..(1473)

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Ile	Ile	Leu	Tyr	Ile	Pro	Gln	Asn	Tyr	Gln	Tyr	Asp	Thr	Glu	Gln	Gly	
			20					25					30			
aat	ggc	tta	cag	gat	tta	gtc	aaa	gcg	gcc	gaa	gag	ttg	ggg	att	gag	144
Asn	Gly	Leu	Gln	Asp	Leu	Val	Lys	Ala	Ala	Glu	Glu	Leu	Gly	Ile	Glu	
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gta	caa	aga	gaa	gaa	cgc	aat	aat	att	gca	aca	gct	caa	acc	agt	tta	192
Val	Gln	Arg	Glu	Glu	Arg	Asn	Asn	Ile	Ala	Thr	Ala	Gln	Thr	Ser	Leu	
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ggc	acg	att	caa	acc	gct	att	ggc	tta	act	gag	cgt	ggc	att	gtg	tta	240
Gly	Thr	Ile	Gln	Thr	Ala	Ile	Gly	Leu	Thr	Glu	Arg	Gly	Ile	Val	Leu	
65					70			75						80		
tcc	gct	cca	caa	att	gat	aaa	ttg	cta	cag	aaa	act	aaa	gca	ggc	caa	288
Ser	Ala	Pro	Gln	Ile	Asp	Lys	Leu	Leu	Gln	Lys	Thr	Lys	Ala	Gly	Gln	
				85				90						95		
gca	tta	ggc	tct	gcc	gaa	agc	att	gta	caa	aat	gca	aat	aaa	gcc	aaa	336
Ala	Leu	Gly	Ser	Ala	Glu	Ser	Ile	Val	Gln	Asn	Ala	Asn	Lys	Ala	Lys	
			100					105					110			
act	gta	tta	tct	ggc	att	caa	tct	att	tta	ggc	tca	gta	ttg	gct	gga	384
Thr	Val	Leu	Ser	Gly	Ile	Gln	Ser	Ile	Leu	Gly	Ser	Val	Leu	Ala	Gly	
		115				120						125				
atg	gat	tta	gat	gag	gcc	tta	cag	aat	aac	agc	aac	caa	cat	gct	ctt	432
Met	Asp	Leu	Asp	Glu	Ala	Leu	Gln	Asn	Asn	Ser	Asn	Gln	His	Ala	Leu	
		130				135					140					

gct aaa gct ggc ttg gag cta aca aat tca tta att gaa aat att gct	480
Ala Lys Ala Gly Leu Glu Leu Thr Asn Ser Leu Ile Glu Asn Ile Ala	
145 150 155 160	
aat tca gta aaa aca ctt gac gaa ttt ggt gag caa att agt caa ttt	528
Asn Ser Val Lys Thr Leu Asp Glu Phe Gly Glu Gln Ile Ser Gln Phe	
165 170 175	
ggt tca aaa cta caa aat atc aaa ggc tta ggg act tta gga gac aaa	576
Gly Ser Lys Leu Gln Asn Ile Lys Gly Leu Gly Thr Leu Gly Asp Lys	
180 185 190	
ctc aaa aat atc ggt gga ctt gat aaa gct ggc ctt ggt tta gat gtt	624
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195 200 205	
atc tca ggg cta tta tcg ggc gca acc gct gca ctt gta ctt gca gat	672
Ile Ser Gly Leu Leu Ser Gly Ala Thr Ala Ala Leu Val Leu Ala Asp	
210 215 220	
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Lys Asn Ala Ser Thr Ala Lys Lys Val Gly Ala Gly Phe Glu Leu Ala	
225 230 235 240	
aac caa gtt gtt ggt aat att acc aaa gcc gtt tct tct tac att tta	768
Asn Gln Val Val Gly Asn Ile Thr Lys Ala Val Ser Ser Tyr Ile Leu	
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Ala Gln Arg Val Ala Ala Gly Leu Ser Ser Thr Gly Pro Val Ala Ala	
260 265 270	
tta att gct tct act gtt tct ctt gcg att agc cca tta gca ttt gcc	864
Leu Ile Ala Ser Thr Val Ser Leu Ala Ile Ser Pro Leu Ala Phe Ala	
275 280 285	
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Gly Ile Ala Asp Lys Phe Asn His Ala Lys Ser Leu Glu Ser Tyr Ala	
290 295 300	
gaa cgc ttt aaa aaa tta ggc tat gac gga gat aat tta tta gca gaa	960
Glu Arg Phe Lys Lys Leu Gly Tyr Asp Gly Asp Asn Leu Leu Ala Glu	
305 310 315 320	
tat cag cgg gga aca ggg act att gat gca tcg gtt act gca att aat	1008
Tyr Gln Arg Gly Thr Gly Thr Ile Asp Ala Ser Val Thr Ala Ile Asn	
325 330 335	
acc gca ttg gcc gct att gct ggt ggt gtg tct gct gct gca gcc gat	1056
Thr Ala Leu Ala Ala Ile Ala Gly Gly Val Ser Ala Ala Ala Ala Asp	
340 345 350	
tta aca ttt gaa aaa gtt aaa cat aat ctt gtc atc acg aat agc aaa	1104
Leu Thr Phe Glu Lys Val Lys His Asn Leu Val Ile Thr Asn Ser Lys	
355 360 365	
aaa gag aaa gtg acc att caa aac tgg ttc cga gag gct gat ttt gct	1152
Lys Glu Lys Val Thr Ile Gln Asn Trp Phe Arg Glu Ala Asp Phe Ala	
370 375 380	
aaa gaa gtg cct aat tat aaa gca act aaa gat gag aaa atc gaa gaa	1200

Lys Glu Val Pro Asn Tyr Lys Ala Thr Lys Asp Glu Lys Ile Glu Glu
 385 390 395 400
 atc atc ggt caa aat ggc gag cgg atc acc tca aag caa gtt gat gat 1248
 Ile Ile Gly Gln Asn Gly Glu Arg Ile Thr Ser Lys Gln Val Asp Asp
 405 410 415
 ctt atc gca aaa ggt aac ggc aaa att acc caa gat gag cta tca aaa 1296
 Leu Ile Ala Lys Gly Asn Gly Lys Ile Thr Gln Asp Glu Leu Ser Lys
 420 425 430
 gtt gtt gat aac tat gaa ttg ctc aaa cat agc aaa aat gtg aca aac 1344
 Val Val Asp Asn Tyr Glu Leu Leu Lys His Ser Lys Asn Val Thr Asn
 435 440 445
 agc tta gat aag tta atc tca tct gta agt gca ttt acc tcg tct aat 1392
 Ser Leu Asp Lys Leu Ile Ser Ser Val Ser Ala Phe Thr Ser Ser Asn
 450 455 460
 gat tcg aga aat gta tta gtg gct cca act tca atg ttg gat caa agt 1440
 Asp Ser Arg Asn Val Leu Val Ala Pro Thr Ser Met Leu Asp Gln Ser
 465 470 475 480
 tta tct tct ctt caa ttt gct agg gga tcc tag 1473
 Leu Ser Ser Leu Gln Phe Ala Arg Gly Ser
 485 490
 <210> 26
 <211> 490
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: leukotoxin polypeptide carrier,
 Figures 15A-15D
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 Met Ala Thr Val Ile Asp Leu Ser Phe Pro Lys Thr Gly Ala Lys Lys
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 Ile Ile Leu Tyr Ile Pro Gln Asn Tyr Gln Tyr Asp Thr Glu Gln Gly
 20 25 30
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 35 40 45
 Val Gln Arg Glu Glu Arg Asn Asn Ile Ala Thr Ala Gln Thr Ser Leu
 50 55 60
 Gly Thr Ile Gln Thr Ala Ile Gly Leu Thr Glu Arg Gly Ile Val Leu
 65 70 75 80
 Ser Ala Pro Gln Ile Asp Lys Leu Leu Gln Lys Thr Lys Ala Gly Gln
 85 90 95
 Ala Leu Gly Ser Ala Glu Ser Ile Val Gln Asn Ala Asn Lys Ala Lys
 100 105 110

Thr	Val	Leu	Ser	Gly	Ile	Gln	Ser	Ile	Leu	Gly	Ser	Val	Leu	Ala	Gly	
		115					120					125				
Met	Asp	Leu	Asp	Glu	Ala	Leu	Gln	Asn	Asn	Ser	Asn	Gln	His	Ala	Leu	
	130						135				140					
Ala	Lys	Ala	Gly	Leu	Glu	Leu	Thr	Asn	Ser	Leu	Ile	Glu	Asn	Ile	Ala	
145					150					155					160	
Asn	Ser	Val	Lys	Thr	Leu	Asp	Glu	Phe	Gly	Glu	Gln	Ile	Ser	Gln	Phe	
				165					170					175		
Gly	Ser	Lys	Leu	Gln	Asn	Ile	Lys	Gly	Leu	Gly	Thr	Leu	Gly	Asp	Lys	
			180					185					190			
Leu	Lys	Asn	Ile	Gly	Gly	Leu	Asp	Lys	Ala	Gly	Leu	Gly	Leu	Asp	Val	
		195					200					205				
Ile	Ser	Gly	Leu	Leu	Ser	Gly	Ala	Thr	Ala	Ala	Leu	Val	Leu	Ala	Asp	
	210					215					220					
Lys	Asn	Ala	Ser	Thr	Ala	Lys	Lys	Val	Gly	Ala	Gly	Phe	Glu	Leu	Ala	
225					230					235					240	
Asn	Gln	Val	Val	Gly	Asn	Ile	Thr	Lys	Ala	Val	Ser	Ser	Tyr	Ile	Leu	
				245					250					255		
Ala	Gln	Arg	Val	Ala	Ala	Gly	Leu	Ser	Ser	Thr	Gly	Pro	Val	Ala	Ala	
			260					265					270			
Leu	Ile	Ala	Ser	Thr	Val	Ser	Leu	Ala	Ile	Ser	Pro	Leu	Ala	Phe	Ala	
		275					280					285				
Gly	Ile	Ala	Asp	Lys	Phe	Asn	His	Ala	Lys	Ser	Leu	Glu	Ser	Tyr	Ala	
	290					295					300					
Glu	Arg	Phe	Lys	Lys	Leu	Gly	Tyr	Asp	Gly	Asp	Asn	Leu	Leu	Ala	Glu	
305					310					315					320	
Tyr	Gln	Arg	Gly	Thr	Gly	Thr	Ile	Asp	Ala	Ser	Val	Thr	Ala	Ile	Asn	
				325					330					335		
Thr	Ala	Leu	Ala	Ala	Ile	Ala	Gly	Gly	Val	Ser	Ala	Ala	Ala	Ala	Asp	
			340					345					350			
Leu	Thr	Phe	Glu	Lys	Val	Lys	His	Asn	Leu	Val	Ile	Thr	Asn	Ser	Lys	
		355					360					365				
Lys	Glu	Lys	Val	Thr	Ile	Gln	Asn	Trp	Phe	Arg	Glu	Ala	Asp	Phe	Ala	
	370					375					380					
Lys	Glu	Val	Pro	Asn	Tyr	Lys	Ala	Thr	Lys	Asp	Glu	Lys	Ile	Glu	Glu	
385					390					395					400	
Ile	Ile	Gly	Gln	Asn	Gly	Glu	Arg	Ile	Thr	Ser	Lys	Gln	Val	Asp	Asp	
				405					410					415		
Leu	Ile	Ala	Lys	Gly	Asn	Gly	Lys	Ile	Thr	Gln	Asp	Glu	Leu	Ser	Lys	
			420					425					430			
Val	Val	Asp	Asn	Tyr	Glu	Leu	Leu	Lys	His	Ser	Lys	Asn	Val	Thr	Asn	

435	440	445
Ser Leu Asp Lys Leu Ile Ser Ser Val Ser Ala Phe Thr Ser Ser Asn		
450	455	460
Asp Ser Arg Asn Val Leu Val Ala Pro Thr Ser Met Leu Asp Gln Ser		
465	470	475
Leu Ser Ser Leu Gln Phe Ala Arg Gly Ser		
485	490	

<210> 27
 <211> 376
 <212> PRT
 <213> Mus musculus

<400> 27
Met Met Gln Lys Leu Gln Met Tyr Val Tyr Ile Tyr Leu Phe Met Leu
1 5 10 15
Ile Ala Ala Gly Pro Val Asp Leu Asn Glu Gly Ser Glu Arg Glu Glu
20 25 30
Asn Val Glu Lys Glu Gly Leu Cys Asn Ala Cys Ala Trp Arg Gln Asn
35 40 45
Thr Arg Tyr Ser Arg Ile Glu Ala Ile Lys Ile Gln Ile Leu Ser Lys
50 55 60
Leu Arg Leu Glu Thr Ala Pro Asn Ile Ser Lys Asp Ala Ile Arg Gln
65 70 75 80
Leu Leu Pro Arg Ala Pro Pro Leu Arg Glu Leu Ile Asp Gln Tyr Asp
85 90 95
Val Gln Arg Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr
100 105 110
His Ala Thr Thr Glu Thr Ile Ile Thr Met Pro Thr Glu Ser Asp Phe
115 120 125
Leu Met Gln Ala Asp Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser
130 135 140
Ser Lys Ile Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr
145 150 155 160
Leu Arg Pro Val Lys Thr Pro Thr Thr Val Phe Val Gln Ile Leu Arg
165 170 175
Leu Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser
180 185 190
Leu Lys Leu Asp Met Ser Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp
195 200 205
Val Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu
210 215 220
Gly Ile Glu Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val
225 230 235 240

Ser Lys Ile Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr
 145 150 155 160
 Leu Arg Ala Val Lys Thr Pro Thr Thr Val Phe Val Gln Ile Leu Arg
 165 170 175
 Leu Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser
 180 185 190
 Leu Lys Leu Asp Met Ser Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp
 195 200 205
 Val Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu
 210 215 220
 Gly Ile Glu Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val
 225 230 235 240
 Thr Phe Pro Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val
 245 250 255
 Lys Val Thr Asp Thr Pro Lys Arg Ser Arg Arg Asp Phe Gly Leu Asp
 260 265 270
 Cys Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr
 275 280 285
 Val Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg
 290 295 300
 Tyr Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu Gln
 305 310 315 320
 Lys Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly Ser
 325 330 335
 Ala Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu
 340 345 350
 Tyr Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Ala Met
 355 360 365
 Val Val Asp Arg Cys Gly Cys Ser
 370 375

<210> 29
 <211> 375
 <212> PRT
 <213> Homo sapiens

<400> 29
 Met Gln Lys Leu Gln Leu Cys Val Tyr Ile Tyr Leu Phe Met Leu Ile
 1 5 10 15
 Val Ala Gly Pro Val Asp Leu Asn Glu Asn Ser Glu Gln Lys Glu Asn
 20 25 30
 Val Glu Lys Glu Gly Leu Cys Asn Ala Cys Thr Trp Arg Gln Asn Thr
 35 40 45

Lys	Ser	Ser	Arg	Ile	Glu	Ala	Ile	Lys	Ile	Gln	Ile	Leu	Ser	Lys	Leu	50	55	60
Arg	Leu	Glu	Thr	Ala	Pro	Asn	Ile	Ser	Lys	Asp	Val	Ile	Arg	Gln	Leu	65	70	75
Leu	Pro	Lys	Ala	Pro	Pro	Leu	Arg	Glu	Leu	Ile	Asp	Gln	Tyr	Asp	Val	85	90	95
Gln	Arg	Asp	Asp	Ser	Ser	Asp	Gly	Ser	Leu	Glu	Asp	Asp	Asp	Tyr	His	100	105	110
Ala	Thr	Thr	Glu	Thr	Ile	Ile	Thr	Met	Pro	Thr	Glu	Ser	Asp	Phe	Leu	115	120	125
Met	Gln	Val	Asp	Gly	Lys	Pro	Lys	Cys	Cys	Phe	Phe	Lys	Phe	Ser	Ser	130	135	140
Lys	Ile	Gln	Tyr	Asn	Lys	Val	Val	Lys	Ala	Gln	Leu	Trp	Ile	Tyr	Leu	145	150	155
Arg	Pro	Val	Glu	Thr	Pro	Thr	Thr	Val	Phe	Val	Gln	Ile	Leu	Arg	Leu	165	170	175
Ile	Lys	Pro	Met	Lys	Asp	Gly	Thr	Arg	Tyr	Thr	Gly	Ile	Arg	Ser	Leu	180	185	190
Lys	Leu	Asp	Met	Asn	Pro	Gly	Thr	Gly	Ile	Trp	Gln	Ser	Ile	Asp	Val	195	200	205
Lys	Thr	Val	Leu	Gln	Asn	Trp	Leu	Lys	Gln	Pro	Glu	Ser	Asn	Leu	Gly	210	215	220
Ile	Glu	Ile	Lys	Ala	Leu	Asp	Glu	Asn	Gly	His	Asp	Leu	Ala	Val	Thr	225	230	235
Phe	Pro	Gly	Pro	Gly	Glu	Asp	Gly	Leu	Asn	Pro	Phe	Leu	Glu	Val	Lys	245	250	255
Val	Thr	Asp	Thr	Pro	Lys	Arg	Ser	Arg	Arg	Asp	Phe	Gly	Leu	Asp	Cys	260	265	270
Asp	Glu	His	Ser	Thr	Glu	Ser	Arg	Cys	Cys	Arg	Tyr	Pro	Leu	Thr	Val	275	280	285
Asp	Phe	Glu	Ala	Phe	Gly	Trp	Asp	Trp	Ile	Ile	Ala	Pro	Lys	Arg	Tyr	290	295	300
Lys	Ala	Asn	Tyr	Cys	Ser	Gly	Glu	Cys	Glu	Phe	Val	Phe	Leu	Gln	Lys	305	310	315
Tyr	Pro	His	Thr	His	Leu	Val	His	Gln	Ala	Asn	Pro	Arg	Gly	Ser	Ala	325	330	335
Gly	Pro	Cys	Cys	Thr	Pro	Thr	Lys	Met	Ser	Pro	Ile	Asn	Met	Leu	Tyr	340	345	350
Phe	Asn	Gly	Lys	Glu	Gln	Ile	Ile	Tyr	Gly	Lys	Ile	Pro	Ala	Met	Val	355	360	365

Val Asp Arg Cys Gly Cys Ser
370 375

<210> 30
<211> 375
<212> PRT
<213> Papio hamadryas

<400> 30
Met Gln Lys Leu Gln Leu Cys Val Tyr Ile Tyr Leu Phe Met Leu Ile
1 5 10 15

Val Ala Gly Pro Val Asp Leu Asn Glu Asn Ser Glu Gln Lys Glu Asn
20 25 30

Val Glu Lys Glu Gly Leu Cys Asn Ala Cys Thr Trp Arg Gln Asn Thr
35 40 45

Lys Ser Ser Arg Ile Glu Ala Ile Lys Ile Gln Ile Leu Ser Lys Leu
50 55 60

Arg Leu Glu Thr Ala Pro Asn Ile Ser Lys Asp Ala Ile Arg Gln Leu
65 70 75 80

Leu Pro Lys Ala Pro Pro Leu Arg Glu Leu Ile Asp Gln Tyr Asp Val
85 90 95

Gln Arg Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His
100 105 110

Ala Thr Thr Glu Thr Ile Ile Thr Met Pro Thr Glu Ser Asp Phe Leu
115 120 125

Met Gln Val Asp Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser
130 135 140

Lys Ile Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr Leu
145 150 155 160

Arg Pro Val Glu Thr Pro Thr Thr Val Phe Val Gln Ile Leu Arg Leu
165 170 175

Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu
180 185 190

Lys Leu Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val
195 200 205

Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly
210 215 220

Ile Glu Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val Thr
225 230 235 240

Phe Pro Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val Lys
245 250 255

Val Thr Asp Thr Pro Lys Arg Ser Arg Arg Asp Phe Gly Leu Asp Cys
260 265 270

Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val
 275 280 285
 Asp Phe Glu Ala Leu Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr
 290 295 300
 Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu Gln Lys
 305 310 315 320
 Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly Ser Ala
 325 330 335
 Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr
 340 345 350
 Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Ala Met Val
 355 360 365
 Val Asp Arg Cys Gly Cys Ser
 370 375

<210> 31
 <211> 375
 <212> PRT
 <213> bos taurus

<400> 31
 Met Gln Lys Leu Gln Ile Ser Val Tyr Ile Tyr Leu Phe Met Leu Ile
 1 5 10 15
 Val Ala Gly Pro Val Asp Leu Asn Glu Asn Ser Glu Gln Lys Glu Asn
 20 25 30
 Val Glu Lys Glu Gly Leu Cys Asn Ala Cys Leu Trp Arg Glu Asn Thr
 35 40 45
 Thr Ser Ser Arg Leu Glu Ala Ile Lys Ile Gln Ile Leu Ser Lys Leu
 50 55 60
 Arg Leu Glu Thr Ala Pro Asn Ile Ser Lys Asp Ala Ile Arg Gln Leu
 65 70 75 80
 Leu Pro Arg Ala Pro Pro Leu Leu Glu Leu Ile Asp Gln Phe Asp Val
 85 90 95
 Gln Arg Asp Ala Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His
 100 105 110
 Ala Arg Thr Glu Thr Val Ile Thr Met Pro Thr Glu Ser Asp Leu Leu
 115 120 125
 Thr Gln Val Glu Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser
 130 135 140
 Lys Ile Gln Tyr Asn Lys Leu Val Lys Ala Gln Leu Trp Ile Tyr Leu
 145 150 155 160
 Arg Pro Val Lys Thr Pro Ala Thr Val Phe Val Gln Ile Leu Arg Leu
 165 170 175

Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu
 180 185 190
 Lys Leu Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val
 195 200 205
 Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly
 210 215 220
 Ile Glu Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val Thr
 225 230 235 240
 Phe Pro Glu Pro Gly Glu Asp Gly Leu Thr Pro Phe Leu Glu Val Lys
 245 250 255
 Val Thr Asp Thr Pro Lys Arg Ser Arg Arg Asp Phe Gly Leu Asp Cys
 260 265 270
 Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val
 275 280 285
 Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr
 290 295 300
 Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu Gln Lys
 305 310 315 320
 Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly Ser Ala
 325 330 335
 Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr
 340 345 350
 Phe Asn Gly Glu Gly Gln Ile Ile Tyr Gly Lys Ile Pro Ala Met Val
 355 360 365
 Val Asp Arg Cys Gly Cys Ser
 370 375

<210> 32
 <211> 375
 <212> PRT
 <213> Sus scrofa

<400> 32
 Met Gln Lys Leu Gln Ile Tyr Val Tyr Ile Tyr Leu Phe Met Leu Ile
 1 5 10 15
 Val Ala Gly Pro Val Asp Leu Asn Glu Asn Ser Glu Gln Lys Glu Asn
 20 25 30
 Val Glu Lys Glu Gly Leu Cys Asn Ala Cys Met Trp Arg Gln Asn Thr
 35 40 45
 Lys Ser Ser Arg Leu Glu Ala Ile Lys Ile Gln Ile Leu Ser Lys Leu
 50 55 60
 Arg Leu Glu Thr Ala Pro Asn Ile Ser Lys Asp Ala Ile Arg Gln Leu
 65 70 75 80

<212> PRT
 <213> Ovis aries

<400> 33

Met	Gln	Lys	Leu	Gln	Ile	Phe	Val	Tyr	Ile	Tyr	Leu	Phe	Met	Leu	Leu	1	5	10	15
Val	Ala	Gly	Pro	Val	Asp	Leu	Asn	Glu	Asn	Ser	Glu	Gln	Lys	Glu	Asn	20	25	30	
Val	Glu	Lys	Lys	Gly	Leu	Cys	Asn	Ala	Cys	Leu	Trp	Arg	Gln	Asn	Asn	35	40	45	
Lys	Ser	Ser	Arg	Leu	Glu	Ala	Ile	Lys	Ile	Gln	Ile	Leu	Ser	Lys	Leu	50	55	60	
Arg	Leu	Glu	Thr	Ala	Pro	Asn	Ile	Ser	Lys	Asp	Ala	Ile	Arg	Gln	Leu	65	70	75	80
Leu	Pro	Arg	Ala	Pro	Pro	Leu	Arg	Glu	Leu	Ile	Asp	Gln	Tyr	Asp	Val	85	90	95	
Gln	Arg	Asp	Asp	Ser	Ser	Asp	Gly	Ser	Leu	Glu	Asp	Asp	Asp	Tyr	His	100	105	110	
Val	Thr	Thr	Glu	Thr	Val	Ile	Thr	Met	Pro	Thr	Glu	Ser	Asp	Leu	Leu	115	120	125	
Ala	Glu	Val	Gln	Glu	Lys	Pro	Lys	Cys	Cys	Phe	Phe	Lys	Phe	Ser	Ser	130	135	140	
Lys	Ile	Gln	His	Asn	Lys	Val	Val	Lys	Ala	Gln	Leu	Trp	Ile	Tyr	Leu	145	150	155	160
Arg	Pro	Val	Lys	Thr	Pro	Thr	Thr	Val	Phe	Val	Gln	Ile	Leu	Arg	Leu	165	170	175	
Ile	Lys	Pro	Met	Lys	Asp	Gly	Thr	Arg	Tyr	Thr	Gly	Ile	Arg	Ser	Leu	180	185	190	
Lys	Leu	Asp	Met	Asn	Pro	Gly	Thr	Gly	Ile	Trp	Gln	Ser	Ile	Asp	Val	195	200	205	
Lys	Thr	Val	Leu	Gln	Asn	Trp	Leu	Lys	Gln	Pro	Glu	Ser	Asn	Leu	Gly	210	215	220	
Ile	Glu	Ile	Lys	Ala	Leu	Asp	Glu	Asn	Gly	His	Asp	Leu	Ala	Val	Thr	225	230	235	240
Phe	Pro	Glu	Pro	Gly	Glu	Glu	Gly	Leu	Asn	Pro	Phe	Leu	Glu	Val	Lys	245	250	255	
Val	Thr	Asp	Thr	Pro	Lys	Arg	Ser	Arg	Arg	Asp	Phe	Gly	Leu	Asp	Cys	260	265	270	
Asp	Glu	His	Ser	Thr	Glu	Ser	Arg	Cys	Cys	Arg	Tyr	Pro	Leu	Thr	Val	275	280	285	
Asp	Phe	Glu	Ala	Phe	Gly	Trp	Asp	Trp	Ile	Ile	Ala	Pro	Lys	Arg	Tyr	290	295	300	

Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Leu Phe Leu Gln Lys
 305 310 315 320

Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Lys Gly Ser Ala
 325 330 335

Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr
 340 345 350

Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Gly Met Val
 355 360 365

Val Asp Arg Cys Gly Cys Ser
 370 375

<210> 34

<211> 375

<212> PRT

<213> Gallus gallus

<400> 34

Met Gln Lys Leu Ala Val Tyr Val Tyr Ile Tyr Leu Phe Met Gln Ile
 1 5 10 15

Ala Val Asp Pro Val Ala Leu Asp Gly Ser Ser Gln Pro Thr Glu Asn
 20 25 30

Ala Glu Lys Asp Gly Leu Cys Asn Ala Cys Thr Trp Arg Gln Asn Thr
 35 40 45

Lys Ser Ser Arg Ile Glu Ala Ile Lys Ile Gln Ile Leu Ser Lys Leu
 50 55 60

Arg Leu Glu Gln Ala Pro Asn Ile Ser Arg Asp Val Ile Lys Gln Leu
 65 70 75 80

Leu Pro Arg Ala Pro Pro Leu Gln Glu Leu Ile Asp Gln Tyr Asp Val
 85 90 95

Gln Arg Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His
 100 105 110

Ala Thr Thr Glu Thr Ile Ile Thr Met Pro Thr Glu Ser Asp Phe Leu
 115 120 125

Val Gln Met Glu Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser
 130 135 140

Lys Ile Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr Leu
 145 150 155 160

Arg Gln Val Gln Lys Pro Thr Thr Val Phe Val Gln Ile Leu Arg Leu
 165 170 175

Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu
 180 185 190

Lys Leu Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val
 195 200 205

Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly
 210 215 220
 Ile Glu Ile Lys Ala Phe Asp Glu Thr Gly Arg Asp Leu Ala Val Thr
 225 230 235 240
 Phe Pro Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val Arg
 245 250 255
 Val Thr Asp Thr Pro Lys Arg Ser Arg Arg Asp Phe Gly Leu Asp Cys
 260 265 270
 Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val
 275 280 285
 Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr
 290 295 300
 Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu Gln Lys
 305 310 315 320
 Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly Ser Ala
 325 330 335
 Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr
 340 345 350
 Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Ala Met Val
 355 360 365
 Val Asp Arg Cys Gly Cys Ser
 370 375

<210> 35
 <211> 375
 <212> PRT
 <213> Meleagris gallopavo

<400> 35
 Met Gln Ile Leu Ala Val Tyr Val Tyr Ile Tyr Leu Phe Met Gln Ile
 1 5 10 15
 Leu Val His Pro Val Ala Leu Asp Gly Ser Ser Gln Pro Thr Glu Asn
 20 25 30
 Ala Glu Lys Asp Gly Leu Cys Asn Ala Cys Thr Trp Arg Gln Asn Thr
 35 40 45
 Lys Ser Ser Arg Ile Glu Ala Ile Lys Ile Gln Ile Leu Ser Lys Leu
 50 55 60
 Arg Leu Glu Gln Ala Pro Asn Ile Ser Arg Asp Val Ile Lys Gln Leu
 65 70 75 80
 Leu Pro Arg Ala Pro Pro Leu Gln Glu Leu Ile Asp Gln Tyr Asp Val
 85 90 95
 Gln Arg Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His
 100 105 110

Ala Thr Thr Glu Thr Ile Ile Thr Met Pro Thr Glu Ser Asp Phe Leu
 115 120 125
 Val Gln Met Glu Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser
 130 135 140
 Lys Ile Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr Leu
 145 150 155 160
 Arg Gln Val Gln Lys Pro Thr Thr Val Phe Val Gln Ile Leu Arg Leu
 165 170 175
 Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu
 180 185 190
 Lys Leu Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val
 195 200 205
 Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly
 210 215 220
 Ile Glu Ile Lys Ala Phe Asp Glu Asn Gly Arg Asp Leu Ala Val Thr
 225 230 235 240
 Phe Pro Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val Arg
 245 250 255
 Val Thr Asp Thr Pro Lys Arg Ser Arg Arg Asp Phe Gly Leu Asp Cys
 260 265 270
 Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val
 275 280 285
 Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr
 290 295 300
 Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu Gln Lys
 305 310 315 320
 Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly Ser Ala
 325 330 335
 Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr
 340 345 350
 Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Ala Met Val
 355 360 365
 Val Asp Arg Cys Gly Cys Ser
 370 375

<210> 36
 <211> 374
 <212> PRT
 <213> Danio rerio

<400> 36
 Met His Phe Thr Gln Val Leu Ile Ser Leu Ser Val Leu Ile Ala Cys
 1 5 10 15

Gly Pro Val Gly Tyr Gly Asp Ile Thr Ala His Gln Gln Pro Ser Thr
 20 25 30
 Ala Thr Glu Glu Ser Glu Leu Cys Ser Thr Cys Glu Phe Arg Gln His
 35 40 45
 Ser Lys Leu Met Arg Leu His Ala Ile Lys Ser Gln Ile Leu Ser Lys
 50 55 60
 Leu Arg Leu Lys Gln Ala Pro Asn Ile Ser Arg Asp Val Val Lys Gln
 65 70 75 80
 Leu Leu Pro Arg Ala Pro Pro Leu Gln Gln Leu Leu Asp Gln Tyr Asp
 85 90 95
 Val Leu Gly Asp Asp Ser Lys Asp Gly Ala Val Glu Glu Asp Asp Glu
 100 105 110
 His Ala Thr Thr Glu Thr Ile Met Thr Met Ala Thr Glu Pro Asp Pro
 115 120 125
 Ile Val Gln Val Asp Arg Lys Pro Lys Cys Cys Phe Phe Ser Phe Ser
 130 135 140
 Pro Lys Ile Gln Ala Asn Arg Ile Val Arg Ala Gln Leu Trp Val His
 145 150 155 160
 Leu Arg Pro Ala Glu Glu Ala Thr Thr Val Phe Leu Gln Ile Ser Arg
 165 170 175
 Leu Met Pro Val Lys Asp Gly Gly Arg His Arg Ile Arg Ser Leu Lys
 180 185 190
 Ile Asp Val Asn Ala Gly Val Thr Ser Trp Gln Ser Ile Asp Val Lys
 195 200 205
 Gln Val Leu Thr Val Trp Leu Lys Gln Pro Glu Thr Asn Arg Gly Ile
 210 215 220
 Glu Ile Asn Ala Tyr Asp Ala Lys Gly Asn Asp Leu Ala Val Thr Ser
 225 230 235 240
 Thr Glu Thr Gly Glu Asp Gly Leu Leu Pro Phe Met Glu Val Lys Ile
 245 250 255
 Ser Glu Gly Pro Lys Arg Ile Arg Arg Asp Ser Gly Leu Asp Cys Asp
 260 265 270
 Glu Asn Ser Ser Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp
 275 280 285
 Phe Glu Asp Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys
 290 295 300
 Ala Asn Tyr Cys Ser Gly Glu Cys Asp Tyr Met Tyr Leu Gln Lys Tyr
 305 310 315 320
 Pro His Thr His Leu Val Asn Lys Ala Ser Pro Arg Gly Thr Ala Gly
 325 330 335

Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr Phe
340 345 350

Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Ser Met Val Val
355 360 365

Asp Arg Cys Gly Cys Ser
370

<210> 37
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: myostatin
peptide

<400> 37
Lys Arg Ser Arg Arg Asp
1 5

<210> 38
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: myostatin
peptide

<400> 38
Lys Glu Asn Val Glu Lys Glu
1 5

<210> 39
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: mystatin
peptide

<400> 39
Ser Leu Lys Asp Asp Asp
1 5